



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,373	07/31/2003	Keith Son	5693P290X	5120

48102 7590 06/29/2006

NETWORK APPLIANCE/BLAKELY  
12400 WILSHIRE BLVD  
SEVENTH FLOOR  
LOS ANGELES, CA 90025-1030

EXAMINER
----------

VIDWAN, JASJIT S

ART UNIT	PAPER NUMBER
----------	--------------

2182

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/633,373

Applicant(s)

SON, KEITH

Examiner

Jasjit S. Vidwan

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/01/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

FRITZ KLEMING  
PRIMARY EXAMINER  
GROUP 2100  
2181

Supervisory

6/12/2006

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 5, 8, 11, 12, 13 14, 17,18, 20, 21, 22, 25, 28, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada, European Patent Application EP 0939360A2 [herein after Okada] and further in view of Schimke et al U.S. Pub No: 2002/0174197 [herein after Schimke].

3. As per Claim 1, 5, 14, 18 and 22, Okada teaches an apparatus including:

(a) First housing including a first ATA disk drive **[Fig. 2, Elements 8a]**, first adaptor in said first housing **[Fig. 1, Element 4a]**, said first adaptor including an ATA disk drive coupling element coupled to said first ATA disk drive **[Fig. 1, Element 7a]**, and at least two backplane coupling elements in said first housing **[Fig. 1, Elements 5a and 6a]**, said switch being capable of being coupled to a switching signal **[Fig 2b, Element 11a]**.

(b) Second housing including a second ATA disk drive **[Fig. 1, Element 8b]**, second adaptor in said second housing **[Fig. 1, Element 4b]**, said second adaptor including an ATA disk drive coupling element coupled to said second ATA disk drive **[Fig. 1, Element 7b]**, and at least two backplane coupling elements in said second housing **[Fig. 1, Elements 5b and 6b]**, said switch being capable of being coupled to a switching signal **[Fig 2b, Element 11a – Each adapter 4a-4f has own switch shown in Fig 2b]**.

Okada fails to teach an apparatus wherein the two coupling elements are Fiber Channel coupling elements wherein the Fiber channel backplane is coupled to first and second housing.

Schimke teaches the above limitations of having Fiber Channel interfaces coupled to FC backplane [see **Schimke, Page 2, Paragraph 0020**, "Devices 120-130 are typically peripheral devices such as storage devices with FC interfaces and are coupled to the FC-AL on a backplane provided by hub"].

One of ordinary skill in the art at the time of Applicant's invention would have clearly recognized the advantage of combining teachings of Okada with that of Schimke in order to achieve higher reliability during fail over through the employing Fiber Channel Arbitration Loop interconnection system [Page 2, Paragraph 0020]. It is for this reason that one of ordinary skill in the art at the time of Applicant's invention would have been motivated to combine the two teachings in order to achieve higher reliability during fail over through the employing Fiber Channel Arbitration Loop interconnection system [Page 2, Paragraph 0020].

4. As per Claims 4, 8, 11, 12, 17, 21, 25, 28 and 29, teachings of Okada as modified by Schimke teach an Apparatus wherein said switch includes an input port capable of receiving instructions, said instructions being interpretable by a computing device to control said switch [see **Okada, Col. 4, Paragraphs 0021-0023**].

5. As per Claims 13 and 20, teachings of Okada as modified by Schimke teach an Apparatus wherein said second switch is capable of being coupled to a second switching signal [see **Okada, Col. 4, Paragraphs 0022**, Each adaptor has own switch as shown in Figure 1].

6. Claims 2, 3, 6, 7, 9, 10, 15, 16, 19, 20, 23, 24, 26, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada, European Patent Application EP 0939360A2 [herein after Okada] and Schimke et al U.S. Pub No: 2002/0174197 [herein after Schimke] and further in view of Gallagher et al U.S. Patent No: 6,742,068 [herein after Gallagher].

7. As per Claim 9 and 26, Okada and Schimke teach an apparatus including:

(a) First housing including a first ATA disk drive [Fig. 2, Elements 8a], first adaptor in said first housing [Fig. 1, Element 4a], said first adaptor including an ATA disk drive coupling element coupled to said first ATA disk drive [Fig. 1, Element 7a], and at least two backplane

coupling elements in said first housing **[Fig. 1, Elements 5a and 6a]**, said switch being capable of being coupled to a switching signal **[Fig 2b, Element 11a]**.

(b) Second housing including a second ATA disk drive **[Fig. 1, Element 8b]**, second adaptor in said second housing **[Fig. 1, Element 4b]**, said second adaptor including an ATA disk drive coupling element coupled to said second ATA disk drive **[Fig. 1, Element 7b]**, and at least two backplane coupling elements in said second housing **[Fig. 1, Elements 5b and 6b]**, said switch being capable of being coupled to a switching signal **[Fig 2b, Element 11a – Each adapter 4a-4f has own switch shown in Fig 2b]**.

Okada fails to teach an apparatus wherein the two coupling elements are Fiber Channel coupling elements wherein the Fiber channel backplane is coupled to first and second housing. Schimke teaches the above limitations of having Fiber Channel interfaces coupled to FC backplane **[see Schimke, Page 2, Paragraph 0020, “Devices 120-130 are typically peripheral devices such as storage devices with FC interfaces and are coupled to the FC-AL on a backplane provided by hub”]**.

One of ordinary skill in the art at the time of Applicant's invention would have clearly recognized the advantage of combining teachings of Okada with that of Schimke in order to achieve higher reliability during fail over through the employing Fiber Channel Arbitration Loop interconnection system **[Page 2, Paragraph 0020]**. It is for this reason that one of ordinary skill in the art at the time of Applicant's invention would have been motivated to combine the two teachings in order to achieve higher reliability during fail over through the employing Fiber Channel Arbitration Loop interconnection system **[Page 2, Paragraph 0020]**.

Okada and Schimke fail to teach an Apparatus including a serial-to-parallel converter, said serial-to-parallel converter being within said disk drive housing and coupled to said ATA disk drive coupling element, wherein said serial-to-parallel converter is capable of receiving a set of serial ATA disk drive signals and emitting a set of parallel ATA disk drive signals. Gallagher teaches the above limitation of having an Apparatus including a serial-to-parallel converter **[see Gallagher, Col. 10, Elements 14-19]**,

Art Unit: 2182

said serial-to-parallel converter being within said disk drive housing and coupled to said ATA disk drive coupling element, wherein said serial-to-parallel converter is capable of receiving a set of serial ATA disk drive signals and emitting a set of parallel ATA disk drive signals [**Col. 16, Lines 65- Col. 17, Line 2**].

It would have been obvious to one skilled in the art at the time of Applicant's invention to have a power port on the Fiber Channel backplane in order to provide power to the system [**see Gallagher, Col. 1, Lines 10-25**]. It is for this reason that one of ordinary skill in the art at the time of Applicant's invention would have been motivated to combine the teachings in order to provide power to the overall system [**see Gallagher, Col. 1, Lines 10-25**].

8. As per Claims 3, 7, 10, 16, 20, 24, 27, Okada teaches the limitations of Claims 1, 5, 9, 14, 18, 22 and 26, however fails to teach an Apparatus wherein each of said fiber channel back-plane coupling elements includes an port capable of being coupled to a power source, whereby said ATA disk drive coupling is capable of receiving input power from a selectable source. Gallagher however teaches the above limitations of Apparatus wherein each of said fiber channel back-plane coupling elements includes an port capable of being coupled to a power source, whereby said ATA disk drive coupling is capable of receiving input power from a selectable source [**see Gallagher, Col. 6, Lines 4-21**].

It would have been obvious to one skilled in the art at the time of Applicant's invention to have a power port on the Fiber Channel backplane in order to provide power to the system [**see Gallagher, Col. 1, Lines 10-25**]. It is for this reason that one of ordinary skill in the art at the time of Applicant's invention would have been motivated to combine the teachings in order to provide power to the overall system [**see Gallagher, Col. 1, Lines 10-25**].

9. As per Claims 2, 6, 15, 19 and 23, Okada as modified by Gallagher above teaches an Apparatus including a serial-to-parallel converter [**see Gallagher, Col. 10, Elements 14-19**], said serial-to-parallel converter being within said disk drive housing and coupled to said ATA disk drive coupling element, wherein said serial-to-parallel converter is capable of receiving a set of serial ATA disk drive signals and emitting a set of parallel ATA disk drive signals [**Col. 16, Lines 65- Col. 17, Line 2**].

Art Unit: 2182

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasjit S. Vidwan whose telephone number is (571) 272-7936. The examiner can normally be reached on 8am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KIM HUYNH can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JSV  
6/11/06

*Supervisor*  
Fritz Fleming  
PRIMARY EXAMINER  
GROUP 2100  
6/12/2006  
AU 2181